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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/290,170	04/13/1999	HIROSHI ARITA	H-7769	9549

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EXAMINER	
FLEMING, FRITZ M	
ART UNIT	PAPER NUMBER
2836	

DATE MAILED: 06/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/290,170	Applicant(s) ARITA ET AL.	
	Examiner Fritz M. Fleming	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Fritz Fleming
Primary Examiner

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-37 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a limited number of measuring equipment across a border, does not reasonably provide enablement for the entire set of systems set forth. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make/use/practice the invention commensurate in scope with these claims.

The problem is with the independent claims setting forth what seems to be "measuring equipment which is mounted on an energy path of said direct current transmission system and measuring an energy amount transmitted trough said energy path across a border between said countries" or the like, as each independent claim has a variant of the same language. Per the claims, an energy path seems to link various system pairs, and the settlements are ultimately a function of the output of the measuring equipment at each system. At the end of each independent claim, the system pairs then are expanded to include the rest of the world outside of the Pacific Rim countries. Thus it becomes unclear as the claim goes on, where exactly the "measuring" takes place and at how many border crossings the "measuring" takes place. This seems to be further confused by each claim requiring that each system of each linked pair include a Pacific Rim country. Thus a reading of the claims would

seem to indicate that there would be measuring equipment along the path at each border. The path(s) is/are then extended to include numerous pairs that do not seem to include what one would seem to view as a "Pacific Rim" country. The specification does not seem to support this worldwide system, as Figures 3/4 only show the "measuring" done between the Russia, Far East, China and Japan systems (21-24) at 25-29,2a along the interconnecting paths2b/g. There seems to be no disclosure involving the same set of interconnections and measuring for the rest of the claimed paths/pairs. Thus there seems to be a scope of enablement question involving the scope of the claims. The claims seem to set forth a worldwide system with measuring at the borders, which does not seem to be the case of the specification. For instance, there seems to be no disclosure of the measurement across any of the Canada/North American/South American/Australia/Indonesia/Phillipine/Malaysia/Thailand/Vietnam systems (see Figure 1). It is to be noted that many of the systems and paths do not even include reference numerals. The concept of "borders" then seems to be lost, as each system would seem to include many countries. Thus the claims and specification need to be reviewed to ensure that the scope of the claims is proper when finding support and enablement in the particular embodiments set forth.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-37 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per the above, it is unclear what the claim limitations are to be, given the reading that would seem to require measuring at each border crossing within the interconnected systems. Thus it appears to be unclear what the resultant configuration is, given what appears to be a Russia/China/Far East/Japan system in the specification that does not seem to include measuring at the remaining paired systems. The inclusion of a "Pacific Rim" country in each of the pairs seems to support the notion that the actual system is that of a regional, not global one. Thus the claims need to be reviewed for clarity, precision, and support/enablement.

5. In light of the above, the examiner is repeating the previous art rejection, with comments to follow that address points raised by the applicants.

6. It is to be noted that the independent claims 1-3 were previously drafted in the JEPSON format, thus making an implied admission of prior art of the preamble elements. The examiner thus interprets the previously recited preamble elements to be admitted prior art and hence the improvement portions of the claims are what applicants deem to be novel and lacking from the admitted prior art. Thus applying this admission of prior art to the recently amended claims results in a similar treatment of that claim. See MPEP 2129. Applicant has already admitted that such is well known per the previously drafted JEPSON language. Thus applicant has set forth what is admitted prior art. To merely redraft the claims to remove such from the instant claims does not remove the admission of prior art already made in the file.

Claim Rejections - 35 USC § 103

7. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior elements in view of NEW SCIENTIST.

The admitted prior art sets forth cross border power transfer with path mounted measuring equipment. What is lacking is control and generation of electricity and its directional flow based upon the output of the measuring equipment. NEW SCIENTIST clearly sets forth many objectives and advantages of a global power grid. In order to address the independent claims, it sets forth at page 4 that the international links allow for exportation of spare generating capacity from France to meet peak load demand in Britain. This is clearly indicative of the knowledge of capacity and demand in both France and Britain so as to be able to meet the loads of both. Note also the exportation of Swiss power to France to meet peak load demand. Thus numerous examples of cross border electricity traffic are given for the purpose embodied in the independent claims. Thus it would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify the admitted prior art per the teachings of the New Scientist for the purpose of being able to share generating capacity and smooth out surges in demand by exporting spare generating capacity from one country to another when the peak loads in the countries differ. This clearly requires the ability to know and sense when peak power is need in one country so that the surplus from another country can be supplied when it is needed. Thus the combination renders the claims obvious. The New Scientist also teaches many other features, rendering other claims obvious as well. Note the use of numerous types of power (hydro, geothermal).

Note the supplying of Africa with a single grid, thus covering numerous time zones as well as above and below equatorial distribution. Since numerous countries of differing monetary units and languages are involved, it is obvious that complex cross border systems take into account such factors and provide means to accommodate for such in order to effectively carry out the business dealings fairly, effectively, and equitably. Clearly such cross border systems also require sophisticated communications systems and hence the mere inclusion of such are deemed to be obvious subject matter within the level of ordinary skill in the art. Certain monetary units (i.e. US Dollar, Swiss Franc, Deutsch Mark) are recognized standards of international trade and hence to peg transactions to such is merely common business practice well known to those skilled in the art. Note the discussion of laying of cables, an Alaska link, thus rendering obvious the "transport route of another kind of energy" as pipelines for gas and oil are commonly run underwater and across Alaska. Note also a grid for the Pacific Ocean "ring of fire". Note the use of DC links for German/Czech crossings. The trading of emissions credits in electricity production is well-known and hence obvious subject matter. Common sense dictates that power flow from "good" to "poor" producers as a "good" producer would not want to rely upon a "poor" source as such would simply contravene sound business practice. Now to merely contemplate, as applicant has only done at page 11 of the specification and shown on Figure 1, that a distribution network can extend between the claimed continents is still rendered obvious per the page 2 disclosure of the NEW SCIENTIST which clearly shows that Buckminster Fuller dreamt of continents linked by high-voltage pylons and undersea cables to form a global electricity grid to

distribute power from the rainforests of Borneo and the geothermal rocks of Iceland and the Zaire river and France's nuclear power plants. Page 1 even contemplates connection from Siberia to North America, via the Bering Strait. Thus the particular routes are rendered obvious when considering the full extent of the NEW SCIENTIST and the admitted prior art.

Response to Arguments

Applicant's arguments filed 4-18-02 have been fully considered but they are not persuasive. Applicants only argue the "vast concept" and that such is not allegedly taught in the NEW SCIENTIST. As pointed out above, the NEW SCIENTIST sets forth Buckminster Fuller's dream of a global grid and page 3 of the NEW SCIENTIST sets forth bringing power to large industrial centers from hydroelectric sites on the Artic rivers, tidal power sites in Argentina, China, Australia, and India, as well as interconnection of the "ring of fire", Iceland and the Rift Valley. The art certainly teaches one of ordinary skill in the art to think big in terms of a global grid. Thus to merely look at a map and draw a global grid to link various locations is obvious subject matter taught by the true scope of the art. Additionally, applicants argue the vast distances covered by the claims, and that the rejection would only represent a smaller regional system. As pointed out above, applicants have only disclosed details for a regional system themselves, as the overall details of Figures 3 and 4 do not detail the entire system of Figure 1, and only a portion of it. Applicants do not really seem to address the admitted prior art features relied upon by the examiner and instead solely address the NEW SCIENTIST article. The examiner has removed the previous grounds of rejection on

112, and the amendment has resulted in new grounds of rejection based upon 112. As far as the newly submitted claims are concerned, such would be obvious in light of normal business transactions that cross national boundaries and currencies.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz M. Fleming whose telephone number is 703.308.1483. The examiner can normally be reached on M-F 0630-1500.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1782.

Fritz M. Fleming
Primary Patent Examiner
Art Unit 2836

ff
June 11, 2002